

*Micrometric Measures of the Diameter of Neptune and distance and position-angle of the Satellite made with the 28-inch refractor at the Royal Observatory, Greenwich.*

(Communicated by the Astronomer Royal.)

The following measures were made with the full aperture of the 28-inch refractor and a power of 670. No correction for irradiation has been applied to the measures of diameters.

The initials L., B., W. B. are those of Mr. Lewis, Mr. Bryant, and Mr. Bowyer respectively.

*Micrometric Measures of the Diameter of Neptune.*

Date.	Apparent Diameter.		No. of Measures.	Diameter reduced to mean distance, 30'05508.		Observer.
	Equatorial.	Polar.		Equatorial.	Polar.	
1896. Nov. 18	2"10	2"03	10, 10	2"02	1"96	L.
20	2'05	1'91	10, 10	1'98	1'83	"
1897. Dec. 17	2'03	2'10	10, 10	1'95	2'02	"
20	...	2'14	6	...	2'07	W.B.
22	2'34	...	10	2'25	...	B.
	2'38	2'27	10, 10	2'27	2'18	L.
24	2'20	2'64	8, 8	2'11	2'54	W.B.

*Micrometric Measures of the Satellite of Neptune.*

Date and Mean Time.				No. of Measures.	Apparent Distance.	Distance reduced to mean distance of Neptune (30'05508).		Position-Angle.	Observer.
1896. d	h	m	s						
Nov. 18	12	38	9	8	15'94	15'35	...	...	L.
	12	33	12	4	...	...	264	9	"
30	11	38	32	10	17'35	16'68	...	...	"
	11	38	8	4	...	...	251	53	"
Dec. 7	11	7	56	6	13'17	12'95	...	...	"
	11	9	17	4	...	...	204	2	"
31	9	29	42	10	11'06	10'65	...	...	"
	9	18	56	4	...	...	167	30	"
1897 Nov. 29	9	42	52	13	14'94	14'37	...	...	"
	9	38	48	4	...	...	275	8	"
Dec. 3	10	57	1	5	16'09	15'46	...	...	"
	10	50	49	4	...	...	58	55	"
17	10	5	20	10	16'74	16'09	...	...	"
	9	56	27	4	...	...	258	18	"

Date and Mean Time.				Sidereal Time.	No. of Measures.	Apparent Distance.	Distance reduced to mean distance of Neptune (30°05508).	Position-Angle.	Observer.	
1897. d	h	m	s	h	m	s		°	'	
Dec. 20	10	53	36	4	52	42	16	17°92	17°23	W. B.
	10	50	57	4	50	3	4	...	77 26	„
22	9	24	30	3	31	16	10	11°82	11°36	B.
	9	24	15	3	31	0	8	...	309 10	„
	10	21	20	4	28	14	10	11°55	11°11	L.
	10	21	22	4	28	17	5	...	303 4	„
23	9	56	5	4	6	51	10	17°28	16°62	„
	9	55	43	4	6	29	5	...	249 59	„
24	10	11	17	4	26	3	20	13°29	12°78	W. B.
	10	6	34	4	21	19	4	...	207 21	„
28	9	46	15	4	16	43	20	13°66	13°15	„
	9	47	3	4	17	33	4	...	292 57	„
1898. Jan. 10	9	38	22	5	0	4	10	16°17	15°61	L.
	9	30	12	4	51	53	4	...	240 16	„

Royal Observatory, Greenwich:  
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*Corrections to the Armagh Catalogue for 1840.*  
By J. L. E. Dreyer, PhD.

Most of the corrections to the Armagh Catalogue given below are the results of an examination of the reductions of a number of stars made two years ago at the request of Professor Auwers. In addition to the ordinary arithmetical errors likely to occur in a vast amount of figure work, the Armagh star-places are not infrequently vitiated by errors for which the peculiar method of reduction adopted by Dr. Robinson is responsible. The right ascension of every star to be determined was taken from some catalogue (at first Piazzi or the A.S.C., later often the B.A.C.), brought up to the beginning of the year and reduced to apparent place, and this "assumed R.A." was then compared with the observed time of meridian transit. The result of this comparison was a clock error, and the difference between that and the clock error found by standard stars was adopted as the "correction to assumed R.A." of the star in question. Similarly in N.P.D. the comparison gave an "index error," the difference of which from the index error found by the nadir observation gave the "correction to assumed N.P.D." It is obvious that this roundabout way of reducing the observations gave abundant opportunities of